2: Schapera E-4, 5 (no date) 1930
FX13 Hottentot FX13
Bushmen FX10

H B 133

miles, without peninsulas of any size or any large islands off its coasts.[1] By far the greater part has an elevation of over 3,000 feet above the sea, while the area below 1,500 feet is merely a narrow fringe round the coast. Most of the interior consists of a high plateau region, rising gradually around its borders and passing by degrees into an encircling belt of much diversified country. The escarpment which bounds it on the south-east, south, and west is continued by the Drakensberg Mountains of the Transvaal, the Drakensberg or Quathlamba of Natal and the Transkei, the Stormberg of the north-eastern Cape Province, the Sneeuwberg, Nieuweveld, Roggeveld, and Kamiesberg further south and west, and is continued northwards under less well-known names to beyond the Kunene River. These mountains appear to be of no great height when viewed from the interior plateau, but on the seaward side they fall steeply, though rather irregularly, to the much lower level of country on the west and south.

On the west, as far south as the Olifants River, the escarpment is separated from the ocean by slopes of a more uniform nature, but in the south the Great Karroo and long ranges of fold-mountains (the Cape Folded Belt) intervene between it and the coast. The coast-line on the west is generally low, almost unbroken by bays or promontories, and beaten all the year round by a heavy surf; on the south there are several prominent headlands, which, however, afford little protection to ships. The only good natural harbour of any size is Saldanha Bay in the south-west, but at Walvis Bay, Table Bay, Algoa Bay and other places ports have been constructed.

H B 132

The general characteristics of the climate are determined more by the physical conformation of the land than by proximity to the equator. The eastern escarpments of the high plateau intercept the rain-bearing winds from the Indian Ocean, so that over the greater part of the interior the rainfall is slight (5 to 24 inches). This, added to the elevation of the land, makes the climate in general dry, bracing, and suitable for Europeans, notwithstanding the fact that the northern part of the country is within the tropics. Owing to the gradual increase of altitude from the coast to the interior, there is a remarkable uniformity of mean annual temperature over the greater part of the region: at

[1] The description given above is compiled mainly from the following sources: S. Passarge, *Südafrika*, 1908, chaps. *Klima* passim; L. Schultze, "Südwestafrika," in *Das Deutsche Kolonialreich*, 1910 (ed. H. Meyer), vol. ii, pp. 129–208; *The Oxford Survey of the British Empire*, 1914, vol. iii "Africa", chaps. 1–10; *Official Year Book of the Union of South Africa*, No. 2, 1918, esp. chaps. 8 and xxvii; *The South and East African Year Book and Guide* (ed. A. S. Bourne and C. G. Brown), 1929 edition, pp. 13–98 and passim.

2: Schapera E-4, 5 (no date) 1930
FX13 Hottentot FX13
Bushmen FX10

very many places, irrespective of latitude or longitude, it is very close to 63° F., which is also the mean for the entire area. The difference between mean summer and mean winter temperatures is, however, considerable, increasing from the coast inland, while the daily range of temperature is also generally great. Frosts are common on the plateau during winter. H B 132

By far the greater part of the country receives the bulk of its rainfall in summer. The winter rainfall area is confined to a comparatively narrow strip parallel with the west coast, and the constant rainfall area to a much smaller belt in the south. Generally speaking the amount of precipitation decreases from east to west, with areas of heavier rainfall along the south coast and in the south-west. The average annual rainfall of about 24 inches is fairly regular all over the eastern half of South Africa, reaching a maximum of 40 inches in Zululand, and diminishing gradually along the south coast to rise again in the Cape Peninsula. It rapidly falls to 10 inches in the south-western Karroo, from which there is a steady decrease towards the north-west in South-West Africa, but the mean value is again approached in Angola and in the northern and eastern Kalahari.

This contrast in the amount and incidence of the rainfall tends to explain very largely the lack in correspondence of the principal river-systems in the south and west respectively. On the west the rivers are few, and only the Kunene, Orange, Olifants, and Berg are perennial, of which the first two, the largest, not only rise within centres of high rainfall, but also receive no important contributions throughout the lower part of their courses. In the south, owing to the moderately high winter rainfall, the smaller rivers rarely cease flowing, but all the important ones, such as the Gouritz, Gamtoos, and Sundays, actually originate in the interior region of summer rains behind the coast ranges and pass through the latter to the sea by means of deep gorges. They receive insufficient water in their courses across the Folded Belt to maintain a constant flow at all seasons, and in times of drought may become a series of pools. H B 133

Since most of the larger rivers rise upon the interior plateau, their gradients, over stretches, are high; sometimes there are waterfalls, such as the Ruacana on the Kunene and the Aughrabies on the Orange, while rocky bars or rapids may occur in their channels within the coastal belt or just before it is reached. In consequence of this great slope, and of the intermittent supply of water, none of the rivers is navigable beyond its estuary. The mouths of the rivers

2: Schapera E-4, 5 (no date) 1930
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and Middle Kalahari that it is scarcely possible to traverse parts of the country, and many routes can only be followed at such times as the pools have been filled by recent rain.

The winter climate is delightful. The heat during the other months is great, but there are occasional short, sudden, and therefore treacherous changes from extreme heat to cold. Malarial fever is prevalent, being particularly severe in the neighbourhood of the water-courses and other low-lying places, where during and immediately after the season of the heavy rains the dense bush, thick undergrowth, and rank vegetation afford excellent shelter to mosquitoes. The rainfall varies from about 8 inches in the south-west to more than 20 inches in the north and east; almost all the rain falls in the summer months, December to April, and chiefly in thunderstorms. Except in the north, none of this rainfall reaches the sea, the water being either evaporated directly or flowing into shallow depressions such as Lake Ngami and the Great Makarrikarri salt-pan. Over wide areas the country is so flat that the rain drains off partly in one direction, partly in another.

The principal river in the north is the Okavango, which, rising in the Angola highlands, flows into the Okavango marshes, a region about a hundred miles in length and from ten to fifty miles in width. From this reed-choked swamp the river at certain seasons overflows on the north into the Kwando and so reaches the Zambesi, and on the south into Lake Ngami and the Botletle River, which feeds the Makarrikarri depression and the great sandy plains of the north-east. During the rains the whole of this region is covered with wide stretches of water, often extending far beyond the horizon. The Nossob, Molopo, and Kuruman Rivers in the south, which formerly drained the greater part of the Middle and Southern Kalahari into the Orange River, are now for the most part sandy beds bordered with trees, and water is seldom found except towards their heads. At the present time no water leaves this part of the Kalahari except through evaporation. The country appears to be suffering from progressive desiccation, but there is said to be good evidence of an abundant supply of water not far beneath the surface.

The rainfall, though very small in the west and south, enables a fair amount of vegetation to flourish, chiefly grasses, shrubs, and trees, except in certain areas where the soil is too saline. The great plains, more especially in the south, are covered with tough sun-bleached tambuti grass (*Aristida brevifolia*), growing knee-high and giving

2: Schapera E-4, 5 (no date) 1930
FX13 Hottentot FX13
Bushmen FX 10

Northern Damaraland to the south of the Karst region is a tract of extensive grass plains, from which emerge isolated eminences and a few mountain chains superimposed on the main plateau. Further south the whole country attains its highest elevation of over 6,000 feet in the Khomashochland of Windhoek district, while south and east of Windhoek rise the great Auas Mountains (highest altitude 7,886 feet), which form the watershed of South-West Africa. Deep clefts and gorges, widely-extended plains and high rugged peaks are characteristic of this region; valleys, too, expand in among the mountain groups, and are often of extreme fertility. To the south succeed the plateaus and table-topped mountains of Great Namaqualand. This part of the country is dominated by two longitudinal trenches, that of the Konkip to the west, that of the Great Fish River to the east. West of the former is a series of mountain ranges and elevated plains, among them being the Tsaras and Tiras Mountains and the Huib plateau, while to the east of it is the Hanam plateau. Still further east, beyond the Great Fish River, the Urinanib plateau overlooks the Kalahari. In the south-east the isolated Great and Little Karas Mountains rise to considerable heights, but the country is for the greater part flat or rolling. Eastward and north-east of these elevated tracts, the upland assumes a very level character, composed mainly of sand dune formation merging eventually everywhere into the sandveld of the Kalahari.

Although the northern half of South-West Africa falls within the Tropic of Capricorn, the climate is on the whole temperate rather than tropical. The extreme north and north-east are hot and trying to Europeans, and malaria is very prevalent there during the autumn; but on the central plateau the dryness of the air makes the summer heat easily supportable, and the country generally is healthy, with clear, bracing atmosphere and much wind. The winters are cold, and ice often forms upon the central and southern plateaus. Rain falls during the summer from October to April, but rarely during the winter season. The mean annual rainfall varies with the latitude, from 6 inches in the south to 22 inches in the centre and reaching 22 inches in the north.

Except for those rivers forming part of the northern and southern frontiers of the country—the Kunene, Okavango, and Orange—there are practically none which carry surface water all the year round. Almost all are simply dry sandy watercourses which become torrents for a short period after rain; but save in very wet seasons few of these

2: Schapera E-4, 5 (no date) 1930
FX13 Hottentot FX13
Bushman FX10

H B 133 flow for any considerable distance. For the rest of the time they have water only below the bed or in pools. Away from these sandy beds water as a rule is extremely hard to find. After heavy rains great hollows in the rocks are filled with water which is a blessing to any traveller passing that way, and there are also vleis and depressions which hold water for a short while. Springs, however, are few and far between, and then generally occur in the river-courses.

H B 137 Corresponding to the variation in the rainfall there is a variation in the character of the vegetation. In the extreme south for a considerable distance semi-desert conditions prevail, the arid, stony plateaux and plains supporting a sparse growth of grass and small, scrubby bushes, including the different species of *Grewia* which produce the wild berries so much used by all the natives as food. In heavy rainy seasons, however, nutritious grasses and flowers spring up everywhere. The river-courses are clothed with trees, especially the Kameeldoorn (*Acacia giraffae*) and the Kokerboom (*Aloe dichotoma*), and in all of them, too, the South American *Nicotiana glauca* Grah., the wild tobacco plant, is found as a straggly, weedy shrub or tree. Northwards the veld assumes the characteristics of the Karroo until Rehoboth is reached, when it changes into park-like grass country studded with large thorn trees, being especially well timbered along the watercourses. From the mountainous portions of the Windhoek district northwards towards Omaruru the country is covered with level bush with an undergrowth of very nutritious grass, the valleys and watercourses being well wooded mostly with Acacia trees, especially the Kameeldoorn. Towards the north the bush becomes denser until it is fairly well timbered all over. In its northernmost section it is traversed by belts of open Mopane forest, and towards the Okavango fertile tropical vegetation is abundant. Numerous kinds of fruits, roots, and tubers used by the natives as food are found over the whole region, but most abundantly in the north. The edible bulbs belong for the most part to the *Irideae* family, while the tubers are generally *Asclepiads*, though the *Cyperaceae* and the *Ornithoglum* also furnish succulent tuber-like growths.

H B 132 133 South of the Orange River the rocky western edge of the great interior plateau is extended into the highlands of Little Namaqualand in the Cape Province. With scanty soil and low rainfall (5 to 15 inches) this region shows the characteristics of the southern portion of South-West Africa. Short perennial streams are found in the Kamiesberg, but the mountainous country enclosed by the great bend

2: Schapera E-4, 5 (no date) 1930
FX13 Hottentot FX13
Bushman FX 10

of the Orange River is very dry. The evel arid plain of Bushmanland further east is essentially a continuation of the Kalahari, from which it is separated by the deep rocky valley of the Orange River. The summer rainfall is low (5 to 10 inches), increasing gradually from the west eastwards; there is practically no surface water, and the soil is usually bare, stony or sandy. The river-beds are mostly dry throughout the greater part of the year, and the Orange River is the only one that always contains water. The general aspect of the vegetation both here and in Namaqualand is that of widely-separated xerophytic shrubs and bushes, with a fair proportion of succulent plants in the low-lying valleys and on the rocky outcrops. Grasses do not form a conspicuous feature, but they occur on the high plateaux and sandy plains, where the vegetative period is short, and where they always assume a tufted habit.

Further south and east is the Upper or Northern Karroo, an arid tract of country stretching northwards to the Orange River at an elevation of between 2,800 and 6,000 feet above sea-level. It is bounded on the west by the Roggeveld, on the south by the Nieuweveld and Sneeuwberg ranges, which form part of the great escarpment of the interior plateau. The landscape appears for the most part in the form of vast treeless plains, only here and there broken by table-topped hills boldly scarped by sandstone and dolerite sheets, while occasionally dark ridges, the outcrops of inclined sheets of dolerite, are seen traversing the country for many miles.

The region is exposed to great extremes of temperature. Severe frosts are experienced in the winter nights, while the summer heats are correspondingly severe, reaching at times to 110° F. in the shade. The feeling of oppression at such times is increased by the hot westerly winds which predominate during the first half of summer, although the nights are cool even during the periods of greatest heat. The winter days, on the other hand, are very enjoyable, the air being keen and bright with a maximum of sunshine. There is a wide range of rainfall, from less than 5 inches in the north-west to 25 inches in the east; the greater part of this falls in violent summer thunderstorms, and almost all the water runs off the sun-baked soil into deep gullies which hurry it off to the sea. Severe droughts are common, and the seasons are all intermittent. The soil is shallow and rock-strewn, except in the alluvial tracts in the valley bottoms, and surface limestone becomes an important feature in the drier parts of the region. Pans are abundant, and a striking feature in the low-grade

2: Schapera E-4, 5 (no date) 1930
FX13 Hottentot FX13
Bushmen FX10

H B 133 134

valleys of the north-west are the wide "vloers" of Carnarvon and Calvinia, more or less well-defined flat areas a few miles wide and thinly covered with brackish silt.

H B 137 311

Owing to the great range in rainfall and altitude there is a considerable diversity of conditions in this region. While the north-western parts are little better than desert, the more favoured districts to the south and east are well covered with permanently-occupied farms, although agriculture is restricted to the alluvial tracts. The vegetation is everywhere of a semi-desert character. The greater part of the country supports only a sparse and incomplete covering of shrublets and stunted, skeleton-like bushes, most of which belong to the family *Compositae*. In spite of their unpromising appearance when burnt up by the rays of the summer sun, they afford excellent sustenance for stock even in the driest seasons, and at the present time they provide nourishment to millions of sheep and goats, supporting one of the great wool growing industries of the world. Thorny plants, succulents, bulbous and tuberous plants abound in places, but trees, principally Acacias, appear as a rule only along the dry sandy river-beds. Grasses are frequent in the rainy season, but nowhere form the dominant feature of the vegetation.

H B 132 133 137

The High Veld of the Orange Free State and the Southern Transvaal is essentially an extension eastwards of the Upper Karroo, but has a much better rainfall. Lying for the most part over 5,000 feet above sea-level, and with an invigorating climate, it is perhaps the most favourable region in the Union for a white population. The rainfall ranges from about 20 to 35 inches, and occurs principally during the summer months in thunderstorms. The winters are dry and cold, and severe frosts are by no means uncommon. The streams are often perennial. The country generally presents a most monotonous type of scenery, consisting of vast rolling plains, although as one travels westward towards drier regions the surface becomes flatter or more varied by steep-sided flat-topped hills. It is essentially grass country and for the most part devoid of indigenous trees, except along the river-banks, which are frequently clothed with willows and mimosas; shrubs are found on the koppies, while growing among the grasses are large numbers of bulbous and tuberous plants.

H B 133

The Coastal Regions

The country between the escarpment and the ocean is considerably smaller than the interior plateau, but as regards climate and structure

2: Schapera E-4, 5 (no date) 1930
FX13 Hottentot FX13
Bushmen FX10

it presents as much diversity. Along the west coast from the Olifants River northwards as far as the Kunene stretches a desolate and barren wilderness, well deserving the name of "Namib" or desert by which it is known in South-West Africa. This arid tract varies in width from 18 miles in the north to about 85 miles towards the south, and the ground-level rises gradually and evenly from the sea to the plateau. The greater part of the surface is covered by drifting sand dunes, which stretch in wave after wave to the horizon; here and there low gravelly hills and ridges of hard rock project through the mantle of sand, while in places gravel plains and sandy flats vary the monotonous billow of the landscape. The belt of dunes is widest and most continuous south of the Swakop, some of them reaching a height of 500 feet and over; further north they are at once much less continuous and much lower, and the country east of them is more broken. The Northern Namib is further distinguished from the Southern by the presence of watercourses which have kept an open channel to the sea.

The cold Benguella current sweeping the coast from the Antarctic is primarily responsible for the aridity of this region. The coast is dominated by cool winds from south and south-west for about 50 miles inland, although there are occasional very hot winds from the east during the dry season. The winds blowing inland over the cold water lose a considerable amount of their moisture, which hangs as a dense mist over the coastal border almost all the year round, but especially heavily in winter. The Namib in consequence is a practically rainless desert, the mean annual rainfall at Walvis Bay, for instance, being 0·3 inches, and at Port Nolloth 2·17 inches. The temperature, lowered by the Antarctic current, is fairly constant. Port Nolloth in the south, with a mean annual temperature of 57·5°, has the least annual range of temperature in South Africa; February the warmest month has a temperature of only 60·1°, while July the coolest month averages 54·2°.

The result of the deficient rainfall is a very scanty, intensely xerophytic vegetation. The plants are stunted and dwarfed, and nowhere form a conspicuous covering to the earth. Here and there considerable areas are almost entirely devoid of vegetation, although along much of the coastal border the wet and heavy sea fog maintains a sparse cover of bush on the sandy ground. From about 25 miles inland the landscape is characterized by such plants as the milk bush (*Euphorbia*) and cacti, while towards the east, in years of abundant rainfall, the country is fairly well grassed. In the river beds rich

2: Schapera E-4, 5 (no date) 1930
FX13 Hottentot FX13
Bushman FX10

verdure may be found, such as various Acacias, the principal of which are the Kameeldoorn (*Acacia giraffae*) and the Ana (*Acacia albida*). The leaves and pods of the latter provide the staple food for the cattle, sheep and goats in these parts. Other characteristic vegetable growths are the inflammable candle bush (*Sarcocaulon Burmanni*) and, in the area inland from Walvis Bay, the famous *Inaras* (*Acanthosicyos horrida Welw.*), a leafless cucurbitaceous plant with an edible melon-like fruit which when in season forms practically the sole article of diet of the natives. In one or two spots is found the most remarkable of all, the unique gymnosperm, *Welwitschia mirabilis*, which during a long lifetime produces only two pairs of leaves.

At the Olifants River commences another tract of country, characterized by mountains of the folded type, which extend in parallel ranges, separated by wide valleys, over the whole southern portion of the Cape Province as far east as Humansdorp. From the narrow coastal strip fringing this tract the ground rises more or less abruptly to the mountains of the Folded Belt. To the west the rise is gradual through the fertile Goudini valley of Worcester district; further eastward the vegetation and climate partake more and more of the Karroo character, the Oudtshoorn valley and the many kloofs to the east being generally known as the Southern Karroo. The scenery here rapidly changes to bare uninteresting veld, traversed by deep gullies which are generally dry in the summer. In all directions the landscape is bounded by barren-looking mountains, whose steep, rocky sides appear from a distance to be entirely destitute of vegetation. Nothing can exceed the contrast between the scenery on the opposite slopes of the coast ranges: the traveller from the south, after ascending through luxuriant vegetation, frequently clothed in mist, emerges suddenly into a region of precipices and rocks, where rain may not have fallen for months. The soil in the valleys, however, is fertile when it can be brought under irrigation.

The total annual rainfall is by no means deficient, the average for the region being about 29·5 inches, although it varies greatly according to locality. The average for the Cape Peninsula is 40 inches, most of it falling on the eastern side of Table Mountain. Immediately to the east of Cape Town and as far as Knysna there is a decrease to between 15 and 20 inches. The rainfall then becomes more abundant, the well-wooded Knysna itself being one of the best-watered districts of South Africa, with an average rainfall of 40 inches. Further inland, except on the mountain slopes, the rainfall is much less, and the range

2: Schapera E-4, 5 (no date) 1930
FX13 Hottentot FX13
Bushmen FX10

of temperature is somewhat greater. Most of the rains fall during the winter (April to September), when the temperature, though mild, is still relatively low. The summer is the dry season, and long droughts regularly recur.

These climatic conditions have resulted in the production of a peculiar and characteristic type of vegetation. The dominant plants are evergreen shrubs some three to six feet high, usually with small, stiff, leathery leaves. Between the shrubs are many smaller plants, numbers of which possess bulbs, tubers or other subterranean organs storing up quantities of water and food substances. The sandy plains support a dwarf, heath-like vegetation, while the marshy hollows, the stream margins, mountain ravines and mountain summits all possess their own peculiar plant forms. The families characteristic of this region include the *Proteaceae*, to which belong many of the evergreen shrubs, among them the well-known silver tree (*Leucadendron argenteum*) of the Cape Peninsula and the sugar bush (*Protea mellifera*); the *Restionaceae*, a family of grass-like plants which largely take the place of true grasses in this region, though many of the latter occur as well; and the *Ericaceae* (heath family), which are very numerous and often strikingly beautiful. Forest patches are found in the kloofs and seaward sides of the mountains, the largest area of more or less continuous forest in the Union lying between the Outeniqua Mountains and the sea, extending from George through Knysna to the Humansdorp district. They are composed almost entirely of high timber trees, the more common being species of yellow wood, cedar, ebony, stinkwood, ironwood, and sneezewood.

The last natural region with which we are concerned is the Central or Great Karroo of the Cape Province. Lying at a level of from 1,500 to 3,000 feet above the sea, it stretches as a gently-undulating plain from the foot-hills of the Folded Belt to the mountains forming part of the great escarpment in the north. On the west it extends to the valley of the Olifants River, while in the east the Sundays River may be taken as marking its limit. The mountains of the Folded Belt rob the rain-bearing winds from the sea of their moisture, and so give rise to the aridity of this region. The rainfall is scanty, the annual mean being less than 5 inches in the west, although it increases to 15 inches in the centre and east. The surface soil is shallow, hard, and compact; the river-courses are dry, except during the brief periods of rainfall in the summer, when the bulk of the water is rushed off immediately to the sea. In the dry season the whole region presents

2: Schapera E-4, 5 (no date) 1930
FX13 Hottentot FX13
Bushman FX18

a most desolate appearance. Verdure is entirely wanting, the numerous gullies are empty, and the low ranges of ironstone koppies which dot the plains seem to reflect the heat as from a mirror. The vegetation is composed very largely of drought-resisting thorn bushes, succulents, bulbous and tuberous plants. Grasses appear only in exceptionally wet years, while trees are usually absent, except along the dry river-courses and on the mountain slopes in the east, where the rainfall is highest. Till the early years of the nineteenth century the Great Karroo was regarded as a desert unfit for man or beast; since then well-sinking and donkey transport have bettered the conditions, and the region has gradually become occupied.

Fauna

The great variety of habitat provided by the country taken as a whole has naturally favoured the development of a varied and abundant fauna.[1] South Africa has long been renowned for the wealth of its larger forms of animal life, although with the advance of European settlement and colonization the numbers have been rapidly reduced, particularly of certain classes of big game. The native inhabitants had certainly done something to reduce the numbers and affect the distribution of the fauna, but a balance had been reached which still left the country richly stocked. The Cape was full of game when the first European settlers established themselves there 250 years ago, and in their gradual spread inland the white men found the same abundance of fine forms of animal life in each new tract of country that they entered. A few decades were enough to convert each newly-opened district from a hunter's paradise into a stock-farming country, and the increase of veld-burning carried the destruction into other zones of life. But over large parts of South Africa the face of the country itself has been little changed on the whole, and a good deal of the original fauna has survived, even on much of the enclosed land.

The mammalian fauna is, or rather was, characterized by the great abundance and variety of antelopes, the presence of such remarkable "living fossils" as the elephant, giraffe, rhinoceros, hippopotamus, and aardvark, as well as of the buffalo, zebra, and quagga, and the abundance of carnivora, large and small. During the eighteenth

[1] An excellent short summary is given by Dr. R. I. Gill, "Descriptive Sketch of the Fauna of South Africa," *Official Year Book of the Union*, No. 6, pp. 31–40. Cf. also Passarge, *op. cit.*, pp. 18–60.

4: Hoernlé 'E-5 (1912-1913)1925
FX13 Hottentot FX13
Nama

occupies approximately two fifths of this area. In the past the northern limit of the Nama was indefinite until the pressure from the north by the Herero became serious, and certainly since the early part of the last century the Nama have been chiefly concentrated in the area of Great Namaqualand. This country is a high level plateau, or tableland, with an average altitude of 3,500 feet above sea level. Along the coast there is a strip of absolute sandy waste, of varying width but averaging about 35 miles across. The country rises rapidly from the coast inland, and the central tableland is cut off from the desert strip, or Namib, by a plateau range of sandstone formation running from north to south with an average height of 4,500 ft. The northern boundary is formed by the Awas mountains, a rugged mass of primary formation rising to a height of 7,200 feet above sea level and forming the watershed of the country. The rainfall over the whole area is extremely small, averaging from 4 inches in the south to 12 inches in the north. The country is, then, on the whole a barren plain with sparse vegetation and little permanent water. Yet after a season of sufficient rains it becomes a waving sea of grass, admirably suited both to cattle and sheep.

Such is the home of the nomadic pastoral Nama who originally owned great herds of large-boned, long-horned cattle and flocks of fat-tailed hairy sheep. Before the coming of the missionaries these people wandered about from fountain to fountain, seeking pasture for their stock. Large permanent fountains, or pools in river beds were claimed as their property by the different groups, rather than areas enclosed by definite territorial boundaries.

There are at present in the Protectorate, besides remnants of the various groups of the Great Namaqua with which this paper is mainly concerned, remnants of other groups who came in from the south of the river in the early part of the nineteenth century, when the general movement of the Hottentot peoples was away from the white settlements. These incoming groups spoke practically the same language as the Nama groups; indeed, the language throughout the area is very similar, so that one can hardly even speak of dialects, though undoubtedly there is a slight difference of vocabulary in the widely separated groups and, in some cases, a slightly different intonation.

6: Hoernlé E-5 (1912-1913)1923
FX13 Hottentot FX13
Nama

THE EXPRESSION OF THE SOCIAL VALUE OF WATER AMONG THE NAMAN OF SOUTH-WEST AFRICA.

BY

MRS. R. F. A. HOERNLÉ, B.A. (*née* MISS A. W. TUCKER).

Read July 13, 1923.

312 231 It seems hardly necessary to emphasise, before a South African audience, the importance of water in a country like South-West Africa, the home of the Naman. They are a pastoral people, to whom "God gave cattle as their grass," as one of them put it to me, so that a good supply of fodder and water are the two essentials of their existence. Grass is often easier to find than water.

133 132 231 When Moffat, over a hundred years ago, inquired of a traveller in South-West Africa what the country was like to which he was journeying he was told: "Sir, you will find plenty of sand and stones, a thinly scattered population always suffering from want of water, on plains and hills roasted like a burnt loaf, under the scorching rays of a cloudless sky." That is a pretty good description of the country in the south which is the home of the Naman, in its normal condition, yet it only wants a few regular showers of rain to convert it into a veritable sea of grass, such as it is now after the wonderful season of rain that is just finished there. Grass there is enough for animals, wild and tame, for at least three years to come, yet long before that time much of it will have become inaccessible, or would have done under primitive conditions, because it will be too far removed from the nearest available water. Ten years ago, when I was travelling through the Richtersveld in a season of great drought, we came upon secluded spots where there was grass in plenty, which was still nourishing enough in spite of the fact that it was dry, yet the natives were creeping miserably along the rugged banks of the Orange, feeding their animals on the quick grass at the edge, for they did not dare to move away from the precious water. This sort of experience makes one realise vividly that it is water which must be the first thought in planning any settlement, or in deciding on any trek, and the quantity of water available will determine the numbers which can settle at any one spot and the length of time during which they can stay there.

312 361 731

NOTE.—It has not been possible to indicate the tone of the Hottentot words in all cases where it was necessary, owing to typographical difficulties. Also, it was not possible to indicate a nasalised *n* for the same reason.

9: Ten Rhyne D-5 (1673) 1933
FX13 Hottentot FX13
Cape Hottentot

pleasant by reason of the trees along its banks, 6. Elands Kloof river.* These rivers, with which this region is copiously irrigated, are, for the most part at least, very wholesome with their sweet sun-warmed waters. 133

On the 17th October I visited the extensive gardens of the noble Company, the abundant source of fresh supplies to visiting ships. It was a lovely sight with its plantations of lemons, citrons, and oranges, its close hedges of rosemary, and its laurels, equal in height to a tall tree, all fragrant in the sun. Through it runs a river that rises at the foot of the mountain, the waters of which are the cause of its smiling fertility. It is the very essence of greenness set in the midst of thorns and barren thickets. From there I ranged with my eyes over the neighbouring mountains, and could plainly see, though at a distance, the source of the S.E. wind. For when the summits of the mountains in the vicinity are covered with a deep bank of cloud gradually creeping down, then comes the *stormy* South-Easter, its greater or less violence being in accordance with the rarity or density of the cloud, its largeness or smallness, its rise or fall. This cloud I have often seen with the naked eye descending from Table Mountain. I have noticed that this wind generally comes in great gusts and that it is always blowing, as if this were the kingdom of Aeolus. For although the stars keep ever on their way with unvarying course, they do not impart the same motions to the air. So here, while one wind, and that not a *steady* one, prevails on land, another at the same moment is found on the sea, blowing in two or three directions in the bay, and in still a different direction outside it. The cause lies in the various physical features of the mountains. For even if the air be quite still elsewhere, yet the mountain which is continuous with Table Mountain is always vomiting forth a gale, and is hence called Devil's Peak. 132

In this connection I might remark that if the physical features of different places were examined more accurately in the light of experience, the art of navigation might not wander within such ill-defined limits. At present the exponents of the art attribute the ignorance arising from their uncertainty to mysterious currents and wave pressures. But on what else can trade winds depend, if not on lofty snow-capped mountains, especially if you remember that these winds blow at the time of the melting of the snows? Where the quarter of the wind is unchanging, or changes but once a year, the only possible operative 000

* There is room for doubt as to the identification of rivers no. 5 and 6 in this list. Ten Rhyne's information is so slight. See *Journals of Barrow and Sollitaire*, ed. Mossop, V.R.S. 12, Appendix C. (E.F.)

9: Ten Rhyne D-5 (1673) 1933
FX13 Hottentot FX13
Cape Hottentot

CHAP. VII.

The Seasons of the Year.

Here the winter is not very rough nor severe; there are not many hailstorms; nor are the rivers frozen; the hoar-frost brings the greatest cold. For here the year is not divided into four seasons, but, as in your India, into two. Rain makes the winter, drought the summer; both are buffeted by furious winds. But when at home the heat of the dog-star prevails, then here is the chill of rainy Orion; for when at home the Sun is approaching the equator, here, moving in the opposite direction, it recedes from it. Then if you choose any spot in Holland, Amsterdam for example, the Cape of Good Hope is 17 degrees and 31 minutes before it in respect of latitude, and 11 degrees and 30 minutes behind it, if you consider the longitude. For in the month of October, which is the beginning of summer here, when the leaves are being stripped from the trees at home, growing things here are just beginning to shoot. 132

CHAP. VIII.

The Hottentots who inhabit this realm.

The people who bear this name are divided into various tribes:— 619

1. The chief tribe is that of the *Saaqquas*.*) This tribe is first both in numbers, in stature (you would think them almost giants), and in physical strength. None of their own race ever attacks them with impunity. Suppose the Namaquas or some other tribe have stolen two or three head of cattle, forthwith they descend on them in war. They are pretty well known by our countrymen, through inhabiting tracts of land at a distance of 150 miles, or a little more. They are frightened at the unfamiliar spectacle of our arms; in other respects they agree in their habits with those who are regularly settled at the Cape of Good Hope. Once a year, on the Governor's orders, a merchandise of tobacco, arrack, and copper necklaces, is sent to them to be profitably exchanged for cattle. The natives are agape for these articles owing to the long interval of waiting. [1+2] 439

*) The Saaqquas (see above, p. 30) were at this time one of the most important markets for the purchase of cattle to supply the needs of passing ships, and, as Ten Rhyne says, expeditions were frequently sent to barter with them. He describes this trade more fully below, see p. 130.

10: Grevenbroek F-5 (ca. 1694) 1933
FX13 Hottentot FX13
Cape Hottentot

or even a coach-and-six, like princes, and sometimes keep as many as ten horses for various purposes. Every year, too, along with the four cohorts of infantry the Colony reviews two squadrons of dragoons, ranged under their colours and very obedient to their leaders. This place also produces very hardy oxen, as swift as those found in India near the Ganges. ODD

Finally must be mentioned the very destructive wild dogs, which hunt up and down in packs of ten or twenty; when they come on sheep or calves, with the utmost savagery they promptly disembowel some and tear the udders and bellies of others with their long sharp teeth. In a moment they destroy a whole flock unless the watchful herds or trusty dogs can keep them off. 136

About the two-horned rhinoceros, the eland, the blaun, the bonasus, or hairy bull, and other animals, I think it unnecessary to write. I am afraid so many huge beasts may disgust you. There is only this I should like to add: I have been told by several people that on drinking half a pint of the blood of one of these animals immediately after its being taken, patients who have long languished in sickness have recovered. Nor would I have you ignorant that there is no animal that has been seen here of which the flesh when roasted is not suitable to men.

Nothing could be more wholesome than the air here, more clear than the atmosphere, more mild and temperate than the sky which but rarely thunders and lightens and then not for long. Exception must be made only of the blustering gales that blow every year from various quarters in the chilly South, and of the showery trade wind, the harbinger of rain. When these are raging I have seen the neighbouring mountains covered for several days with snow and frost, even in the middle of December, when the sun here is at its zenith, which is a very remarkable thing. In July I have seen water covered with ice, and hail in the valleys. Indeed lately hail of such size fell that a youth in his teens, a promising lad, the son of one of our citizens, was killed. He was coming home through the wilds with a slave, and he and his companion were overtaken by the storm four miles from the Cape and died of cold. Furthermore the struggle between the winds is sometimes so great that I have seen four ships riding at anchor together in our harbour all facing different winds at the same time, one East, one North West, a third North East, and the last South West. Even if but one wind blows at a time, it is very unsteady, shifting its quarter often in one and the same day, a fact supported by the universal testimony of all sailors, who state that in rounding the Cape they have often been aware of the greatest changes in the wind. 132

10: Grevenbroek F-5 (ca. 1694) 1933
FX13 Hottentot FX13
Cape Hottentot

The more distant the veld is from us, the more grassy it is, the richer in plants, and the more suited to cultivation. It abounds in oxen and sheep and other animals, as well as every kind of wild beast, so that, as I have said, it is like a zoo; and the mountain glades are so full of huge creatures that there is little danger to man from lions or other wild animals, for there is everywhere ready for them to rend and tear a supply of victims both domesticated and wild which they can easily pounce upon with less danger to themselves than if they attacked men who are generally armed.

There are quarries, and the mountains are pregnant with various metals. Sometimes the soil is rich in gems. And the abundant shady woods and tall stout trees are suited for constructing both houses and ships. Also there are the many wild fruit trees which could without doubt be improved by cultivation. Among others I have seen a species of olive, often warmly praised but as yet, through what chance I know not, neglected. It may be that the method of cultivation is unknown, and that no one has been found who understands the manufacture of the oil.

Near us are many fields of various kinds; that is to say, in a length of one hundred feet you will often find three or four kinds of soil: there barren sand, there gravel, elsewhere clay, and then marsh, mud, flint and rocks. This is the reason, I think, that the ground under corn does not yield crops that ripen uniformly at the one time, but some patches are more advanced than others. So a farmer does not steadily carry out the mowing of the crops once he begins, but turning his reaping-hook from the unripe corn, he goes now along this furrow, now along that, selecting what is ready for the sickle.

The sun is rarely so hot as to scorch the crops; blight is still rarer. The women of the interior, to whose lot this task even at the present day, from old custom and ancestral precedent, still falls, do not dig the soil with mattock or dibble, but with a rake.

The natives on this side of the mountain enthusiastically hire out their labour for a modest wage, and toil more submissively than Spartan helots. They are apt in applying their hands to unfamiliar tasks. Thus they readily acquire the veterinary skill to cure scab in sheep, and they make faithful and efficient herds. They train oxen for use in ploughing; and if put in charge of a wagon, coach or cart, they are found exceedingly quick at inspanning or outspanning or guiding a team. Some of them are very accomplished riders, and have learned to break horses and master them. You would swear it was a Sarmatian galloping over the open plain. Runaways, vagrants and

11: Maingard Q-5 (1931-1932) 1932
FX13 Hottentot FX13
Korana

Translation :

Ia was born at Saron (*Mouê*) in the year of the great snow. The snow covered all the huts. At that time the huts were made of mats. The mats were made of rush. The women collected the rushes in the river. 342 538

Note :

The Links returned to Saron in 1875 (See " History of the Links tribe."). In 1876 there was an abnormal fall of snow. The Government Land-Surveyor, A. C. Bailie, leaving on a Government mission for the North, writes : " On the evening of the 23rd June 1876, I started my waggon (from Kimberley) . . . . On arriving at Barkly West, about eighteen miles from here, I found my waggon stuck on account of the snow " (*Imperial Blue Book*, C. 2220-79 p. 74). He had been already delayed in Kimberley for the same reason (*ibid*, p. 47). Therefore *Ia* was born in 1876. She further told me and this was corroborated by *Tabaê* and *Khoïe*, that they were still living in rush-mat huts at the end of the Anglo-Boer war (1902). 132

Funeral of a Chief.

gommaê te !naoe o, ina /kabaê !naoe-ina /khaiê dibae, ina kaibaoe !naoroe, ina /karaê !aaibae, ina /kha: //o.h qtamaoni na namie, ina //na.ha //goiaie, ina /noi /karaba /kha ka?aoroe, ina /ha.ba tkaroe. 766 539

Translation :

If a chief is buried, he is buried in a grave. A chamber is made for him. Twigs are strewn. Then a mat is spread out. Then the dead body is wrapped up in a kaross. Then it is laid down. Then it is closed up with another mat. Then earth is thrown (over him).

Note :

My informants were *Tataê* and *Ia*. We had been talking about the grave of Johannes Links at Séron, which we had recently visited. *Tataê* told me he had seen the burial, and I asked him to give me a description of it. It surprised me that the old Hottentot practice of burying the body in a sitting posture was not mentioned. *Tataê* denied this and here he is supported by a very accurate observer, Schultze, *Aus Namaland und Kalahari*, p. 336 766 [84]

In plate 4, the grave of Johannes Links is seen marked by a heap of stones.

Terms of Relationship

The method used here was to procure from my informants genealogical lists (which follow later in these studies). Then the informants 601

[See 13: Kirby, cat. 766, and plate 4. - Analyst]